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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,459	12/08/2003	Mark J. Levine	930009-2010	2911

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FROMMER LAWRENCE & HAUG  
745 FIFTH AVENUE- 10TH FL.  
NEW YORK, NY 10151

EXAMINER
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PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1798

MAIL DATE	DELIVERY MODE
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05/10/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/730,459	<b>Applicant(s)</b> LEVINE ET AL.	
	<b>Examiner</b> Andrew T. Piziali	<b>Art Unit</b> 1798	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 March 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13,23-29 and 31-36 is/are pending in the application.
- 4a) Of the above claim(s) 3,5,9-12,24,28 and 29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-8,13,23,25-27 and 31-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/14/04 & 3/23/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/31/2011</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 3/31/2011 has been entered.

### ***Response to Amendment***

2. In view of applicant's amendments the examiner has withdrawn the rejections in view of USPN 5,142,752 to Greenway.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. **Claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.**

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Regarding claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36, the specification is silent regarding a support fabric “in a continuous loop or made endless for an industrial belt.” The specification does not mention an “industrial belt” never mind a support fabric “made endless for an industrial belt.”

Regarding claims 33 and 35, the specification is silent regarding a weave having a thickness small than the thickness of another weave with flat filaments.

Regarding claims 34 and 36, the specification is silent regarding a liquid jet pressure of at least 200 psi.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**6. Claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36, the limitation wherein the hydroentangling support fabric has the mechanical properties and structural strength to reflect liquid jetted from the hydroentangling apparatus renders the claims indefinite. The “mechanical properties” and “structural strength” required to reflect liquid jetted from a hydroentangling apparatus depends on a plurality of undefined variables. For example, the amount of structural strength required to reflect liquid jets depends on the liquid jet pressure and the exposure time to the liquid jets. At a lower pressure and/or shorter exposure time little structural strength is required to handle the liquids jets but at a higher pressure and/or a longer exposure time a larger

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structural strength is required to handle the liquid jets. Therefore, it is unclear what mechanical properties or structural strength is claimed.

Regarding claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36, the limitation “wherein said support fabric is in a continuous loop or made endless for an industrial belt” renders the claims indefinite. Firstly, it is noted that on page 11, first paragraph of the response filed 3/31/2011 the applicant asserts the added “industrial belt” limitation is “purely clarifying in nature and in no way alters the scope of the claim.” Therefore, although the applicant admits that the limitation does not further limit the claim, it is not clear what does or does not correspond to an “industrial belt.” For example, does the phrase refer to a belt used in a specific industry or does the phrase refer to a belt used to produce a specific product? What is the structural difference between a belt and an industrial belt? The belt structure necessary to read on the limitation is unclear. Secondly, it is not clear if the applicant is claiming that the support fabric is either in a continuous loop for an industrial belt or made endless for an industrial belt, or if the applicant is claiming that either the support fabric is in a continuous loop that may or may not be for an industrial belt or the support fabric is made endless for an industrial belt.

Regarding claims 33 and 35, the Markush members render the claims indefinite because each member refers to a property wherein flat filaments are not present without establishing that which is present (undefined variables). It is not clear if all or some or none of the other variables (e.g., materials, weave structure, filament fineness, and/or fabric density) are the same or different for the two comparable scenarios. In addition, other than the weave thickness Markush member, the other Markush members fail to positively identify the non-flat shape(s). Further, it is not clear what specific weave material constitutes the weave with a thickness of T'.

***Claim Rejections - 35 USC § 102/103***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document) in view of (to show inherency) USPN 5,290,454 to Dorica.**

Noelle discloses a hydroentangling apparatus, for the production of a hydroentangled nonwoven product, comprising a drum covered by a water permeable support fabric sleeve comprising flat filaments having a flat cross-sectional shape, wherein said support fabric is in a continuous loop (see entire document including Figure 2, [0034], [0036], [0063] and [0092]).

The fabric inherently has the mechanical properties and structural strength to reflect liquid jetted from a hydroentangling apparatus because the fabric is intended to be used as the support fabric of a hydroentangling support apparatus.

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The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Dorica discloses that a covering for a drum is considered a covering "belt" (column 4, lines 52-64). It is noted that the drum of Dorica is perforated and includes a vacuum (column 4, lines 52-64) just like the perforated and vacuumed drum disclosed by Noelle [0030]. Therefore, the drum cover fabric of Noelle is considered a belt.

Regarding claims 2 and 4, flat filaments may be used in one direction while round filaments may be used in the perpendicular direction ([0092]).

Regarding claim 6, flat filaments may be used in both directions ([0038] and [0092]).

Regarding claim 13, the support fabric inherently possesses the claimed permeability [0037].

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

**10. Claims 23, 25-27, 31, 32, 35 and 36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 5,857,497 to Gaisser.**



Gaisser discloses a water permeable support fabric comprising flat filaments having a flat cross-sectional shape, wherein said support fabric is in a continuous loop (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50).

Regarding the fabric having the mechanical properties and structural strength to reflect liquid jetted from the hydroentangling apparatus, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 25-27, 31 and 32, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been

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shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claim 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3).

Regarding claims 35 and 36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

**11. Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 6,074,966 to Zlatkus.**

Zlatkus discloses a hydroentangling apparatus, for the production of a hydroentangled nonwoven product, comprising a water permeable support fabric comprising filaments wherein said support fabric is in a continuous loop (see entire document including column 2, lines 32-52, column 3, lines 21-29, and the Examples).

Zlatkus discloses a variety of hydroentangling backing wires including a high knuckle wire, a medium knuckle wire, and a flat wire (Figure 1). It is noted that the flat wire backing is not called a small knuckle wire. Rather, it is called a "flat wire." Therefore, the wires are not merely woven with a small knuckle, but are actually woven with a flat knuckle. Considering that a wire comprising flat knuckles inherently possesses flat areas (flat knuckle areas), the flat wire of Zlatkus inherently comprises areas (at least at the knuckle) having a flat cross-sectional shape.

Regarding the fabric having the mechanical properties and structural strength to reflect liquid jetted from the hydroentangling apparatus, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 2, 4 and 6, all of the MD and CD filaments are flat filaments.

Regarding claim 13, the support fabric inherently possesses the claimed permeability.

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

***Claim Rejections - 35 USC § 103***

**12. Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document) in view of USPN 5,761,778 to Fleissner and/or USPN 5,115,544 to Widen.**

Noelle discloses a hydroentangling apparatus, for the production of a hydroentangled nonwoven product, comprising a drum covered by a water permeable support fabric sleeve comprising flat filaments having a flat cross-sectional shape, wherein said support fabric is in a continuous loop (see entire document including Figure 2, [0034], [0036], [0063] and [0092]). Noelle discloses that that drums and drum covers of the apparatus are used to hydroentangle the fibers ([0052]-[0064]).

The support fabric inherently has the mechanical properties and structural strength to reflect liquid jetted from a hydroentangling apparatus because the fabric is intended to be used as the support fabric of a hydroentangling support apparatus.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

In the event that it is shown that the flat filament drum fabric cover of Noelle is not considered a support fabric and/or an industrial belt, Widen discloses that it is known in the hydroentangling apparatus art that hydroentangling on a traveling belt is a viable alternative to hydroentangling on a drum cover (see entire document including column 2, lines 27-30) and Fleissner discloses that a belt is actually preferable to a drum because 1) fiber entanglement is

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improved, 2) water removal is improved, and 3) less energy is required (see entire document including column 2, lines 47-62). In addition, Fleissner discloses that without support between drums (which occurs in Noelle) a lengthwise pull or tension occurs and this warps the nonwoven fiber web (column 1, lines 40-55). Fleissner discloses that the use of traveling belts allow for constant support which eliminates said warping (column 1, line 59 through column 2, line 31). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute traveling hydroentangling belts for the hydroentangling drums of Noelle, motivated by a desire to improve fiber entanglement, improve water removal, reduce energy consumption, and/or reduce nonwoven web warping.

Regarding claims 2 and 4, flat filaments may be used in one direction while round filaments may be used in the perpendicular direction ([0092]).

Regarding claim 6, flat filaments may be used in both directions ([0038] and [0092]).

Regarding claim 13, the support fabric inherently possesses the claimed permeability [0037].

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the

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prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

**13. Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,761,778 to Fleissner in view of WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document).**

Fleissner discloses a hydroentangling apparatus, for the production of a hydroentangled nonwoven product, comprising water permeable support fabrics, wherein said support fabrics are in a continuous loop for an industrial belt (see entire document including the Figures and column 1, line 59 through column 5, line 15). Fleissner illustrates and discloses that the belts wrap around drums wherein the fibers are hydroentangled.

The fabric inherently has the mechanical properties and structural strength to reflect liquid jetted from a hydroentangling apparatus because the fabric is intended to be used as the support fabric of a hydroentangling support apparatus.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Fleissner does not appear to mention the use of a belt with flat filaments, but Noelle discloses that it is known in the hydroentangling support fabric art to use flat filaments to produce a nonwoven with excellent tensile strength, tear strength, abrasion resistance, textile appearance, and increased commercial value (see entire document including [0026], [0092] and [0110]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct at least one support fabric of Fleissner with flat filaments, as taught by Noelle, motivated by a desire to produce a nonwoven with excellent tensile strength, tear strength, abrasion resistance, textile appearance, and increased commercial value.

Regarding claims 2 and 4, Noelle discloses that the flat filaments may be used in one direction while round filaments may be used in the perpendicular direction ([0092]).

Regarding claim 6, Noelle discloses that the flat filaments may be used in both directions ([0038] and [0092]).

Regarding claim 13, Noelle teaches that the support fabric inherently possesses the claimed permeability [0037].



Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter.

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

**14. Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,115,544 to Widen in view of WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document).**

Widen discloses a hydroentangling apparatus, for the production of a hydroentangled nonwoven product, comprising a water permeable metal filament support fabric, wherein said support fabric is in a continuous loop for an industrial belt (see entire document including Figure 1 and column 2, lines 31-53).

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The fabric inherently has the mechanical properties and structural strength to reflect liquid jetted from a hydroentangling apparatus because the fabric is intended to be used as the support fabric of a hydroentangling support apparatus.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Widen does not appear to mention the use of flat filaments, but Widen does disclose that the support fabric should be a fine-mesh metal filament woven support (column 1, lines 40-49). Noelle discloses that it is known in the hydroentangling support fabric art to use flat metal filaments to produce a nonwoven with a fine-mesh of only 10% openness and with excellent tensile strength, tear strength, abrasion resistance, textile appearance, and increased commercial value (see entire document including [0026], [0037], [0092] and [0110]). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the metal filament support fabric of Widen with flat filaments, as taught by Noelle, motivated by a desire to produce a nonwoven with excellent tensile strength, tear strength, abrasion resistance, textile appearance, and increased commercial value.

Regarding claims 2 and 4, Noelle discloses that the flat filaments may be used in one direction while round filaments may be used in the perpendicular direction ([0092]).

Regarding claim 6, Noelle discloses that the flat filaments may be used in both directions ([0038] and [0092]).

Regarding claim 13, Noelle teaches that the support fabric inherently possesses the claimed permeability [0037].

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

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**15. Claims 2, 4, 6-8, 13 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document) in view of (to show inherency) USPN 5,290,454 to Dorica as applied to claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 above, and further in view of USPN 5,857,497 to Gaisser.**

Noelle does not appear to mention the flat filaments support fabric being a multilayer weave, but Gaisser discloses that it is known in the papermaking apparatus art to use a flat filament support fabric with a multilayer weave to improve stability in the machine direction while maintaining the desired permeability (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the flat filament support fabric of Noelle with a multilayer weave, as taught by Gaisser, motivated by a desire to increase structural stability in the machine direction while still affording a high degree of permeability and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 2, 4 and 6, Gaisser discloses that the fabric includes MD filaments and CD filaments (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the MD and/or CD yarns (column 6, lines 41-50).

Regarding claims 7, 8 and 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the first and/or second layer (column 6, lines 41-50).

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**16. Claims 2, 4, 6-8, 13 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document) in view of USPN 5,761,778 to Fleissner and/or USPN 5,115,544 to Widen as applied to claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 above, and further in view of USPN 5,857,497 to Gaisser.**

Noelle does not appear to mention the flat filaments support fabric being a multilayer weave, but Gaisser discloses that it is known in the papermaking apparatus art to use a flat filament support fabric with a multilayer weave to improve stability in the machine direction while maintaining the desired permeability (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the flat filament support fabric of Noelle with a multilayer weave, as taught by Gaisser, motivated by a desire to increase structural stability in the machine direction while still affording a high degree of permeability and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 2, 4 and 6, Gaisser discloses that the fabric includes MD filaments and CD filaments (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the MD and/or CD yarns (column 6, lines 41-50).

Regarding claims 7, 8 and 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the first and/or second layer (column 6, lines 41-50).

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**17. Claims 2, 4, 6-8, 13 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,761,778 to Fleissner in view of WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document) as applied to claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 above, and further in view of USPN 5,857,497 to Gaisser.**

Fleissner does not appear to mention the support fabric being a multilayer weave, but Gaisser discloses that it is known in the papermaking apparatus art to use a support fabric with a multilayer weave to improve stability in the machine direction while maintaining the desired permeability (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the flat filament support fabric with a multilayer weave, as taught by Gaisser, motivated by a desire to increase structural stability in the machine direction while still affording a high degree of permeability and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 2, 4 and 6, Gaisser discloses that the fabric includes MD filaments and CD filaments (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the MD and/or CD yarns (column 6, lines 41-50).

Regarding claims 7, 8 and 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the first and/or second layer (column 6, lines 41-50).

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**18. Claims 2, 4, 6-8, 13 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,115,544 to Widen in view of WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document) as applied to claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 above, and further in view of USPN 5,857,497 to Gaisser.**

Widen does not appear to mention the support fabric being a multilayer weave, but Gaisser discloses that it is known in the papermaking apparatus art to use a support fabric with a multilayer weave to improve stability in the machine direction while maintaining the desired permeability (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the flat filament support fabric with a multilayer weave, as taught by Gaisser, motivated by a desire to increase structural stability in the machine direction while still affording a high degree of permeability and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 2, 4 and 6, Gaisser discloses that the fabric includes MD filaments and CD filaments (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the MD and/or CD yarns (column 6, lines 41-50).

Regarding claims 7, 8 and 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the first and/or second layer (column 6, lines 41-50).

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**19. Claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 103(a) as obvious over USPN 5,857,497 to Gaisser in view of WO 01/88261 to Strandqvist.**

Gaisser discloses a water permeable support fabric comprising flat filaments having a flat cross-sectional shape, wherein said support fabric is in a continuous loop (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50).

Regarding claims 1, 2, 4, 6-8 and 13, Gaisser discloses using the support fabric in a papermaking apparatus (column 1, lines 11-25), but Gaisser does not mention using the support fabric in a hydroentangling apparatus. Strandqvist discloses that it is known in the hydroentangling apparatus art to use a support fabric from a papermaking apparatus (see entire document including page 4, lines 7-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to try using the support fabric of Gaisser in a hydroentangling apparatus, motivated by a desire to construct a functioning hydroentangling apparatus.

A patent claim can be proved obvious merely by showing that the combination of elements was obvious to try. When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product is not of innovation but of ordinary skill and common sense. *KSR v. Teleflex*.



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Regarding the fabric having the mechanical properties and structural strength to reflect liquid jetted from the hydroentangling apparatus, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 2, 4 and 6, Gaisser discloses that the fabric includes MD filaments and CD filaments (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the MD and/or CD yarns (column 6, lines 41-50).

Regarding claims 7, 8 and 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the first and/or second layer (column 6, lines 41-50).

Regarding claim 13, Gaisser discloses that the permeability of the support fabric is greater than 350 cfm (column 4, lines 50-60).

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

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**20. Claims 2, 4, 6-8, 13 and 32-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,074,966 to Zlatkus as applied to claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 above, and further in view of USPN 5,857,497 to Gaisser.**

Zlatkus does not appear to mention the flat filaments support fabric being a multilayer weave, but Gaisser discloses that it is known in the papermaking apparatus art to use a flat filament support fabric with a multilayer weave to improve stability in the machine direction while maintaining the desired permeability (see entire document including column 1, lines 11-35, column 4, lines 30-39 and column 6, lines 42-50). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the flat filament support fabric of Zlatkus with a multilayer weave, as taught by Gaisser, motivated by a desire to increase structural stability in the machine direction while still affording a high degree of permeability and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 2, 4 and 6, Gaisser discloses that the fabric includes MD filaments and CD filaments (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the MD and/or CD yarns (column 6, lines 41-50).

Regarding claims 7, 8 and 32, Gaisser discloses that the support fabric is a multilayer weave fabric (paragraph bridging columns 2 and 3) and that a rectangular shape may be utilized in the first and/or second layer (column 6, lines 41-50).

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**21. Claims 1, 2, 4, 6, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 103(a) as obvious over WO 01/88261 to Strandqvist in view of USPN 3,790,438 to Lewis.**

Strandqvist discloses a hydroentangling apparatus comprising a continuous loop water permeable hydroentangling support member, for the production of a hydroentangled nonwoven product, wherein the support member comprises a polymeric screen with reinforcement filaments (14) (see entire document including the Figures, page 1, lines 4-5, page 3, lines 13-25, and page 5, lines 4-11).

Strandqvist illustrates round reinforcement filaments (14) but does not appear to mention the use of flat reinforcement filaments. Lewis discloses that it is known in the art to reinforce polymeric compositions with flat reinforcement filaments having a flat cross-sectional shape (see Background of the invention section column 1, lines 5-55). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute the round reinforcement filament shape of Strandqvist with the flat cross-sectional shape taught by Lewis, motivated by a desire to provide substantial biaxial reinforcement to the polymeric screen and/or because it is within the general skill of a worker in the art to select a known shape on the basis of its suitability and desired characteristics.

Regarding the fabric having the mechanical properties and structural strength to reflect liquid jetted from the hydroentangling apparatus, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 2, 4 and 6, all of the MD and CD filaments are flat filaments.

Regarding claim 13, the support fabric inherently possesses the claimed permeability.

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are

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commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with the applied prior art.

Regarding claim 32, the support fabric includes a plurality of layers (Figure 3).

Regarding claims 33-36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

**22. Claims 23, 25-27, 31, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,883,022 to Elsener in view of any one of USPN 3,884,630 to Schwartz or USPN 4,104,814 to Whight.**

Elsener discloses a fabric comprising flat filaments having a flat cross-sectional shape (see entire document including column 3, lines 40-47). Elsener discloses that the fabric is preferably a roller hand towel (column 3, lines 56-62). Elsener does not appear to specifically disclose that the roller hand towel is in a continuous loop, but Schwartz and Whight each disclose that it is known in the roller hand towel art to use a continuous loop fabric (see entire documents including column 1, lines 4-23 and column 2, lines 43-45 of Schwartz and column 1, lines 4-45 of Whight). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fabric in any suitable shape, such as a continuous loop fabric, because it is within the general skill of a worker in the art to select a known shape on the basis of its suitability and desired characteristics.

Regarding the fabric having the mechanical properties and structural strength to reflect liquid jetted from the hydroentangling apparatus, the prior art fabric inherently possesses the

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claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

The Patent and Trademark Office can require applicants to prove that prior art products do not necessarily or inherently possess characteristics of claimed products where claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes; burden of proof is on applicants where rejection based on inherency under 35 U.S.C. § 102 or on prima facie obviousness under 35 U.S.C. § 103, jointly or alternatively, and Patent and Trademark Office's inability to manufacture products or to obtain and compare prior art products evidences fairness of this rejection, *In re Best, Bolton, and Shaw*, 195 USPQ 431 (CCPA 1977).

Regarding claims 25-27 and 31, it is the examiner's position that the article of the applied prior art is identical to or only slightly different than the claimed article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter.

Regarding claims 35 and 36, the prior art fabric inherently possesses the claimed characteristics because the fabric structure is substantially identical to the claimed fabric.

***Response to Arguments***

23. Applicant's arguments filed 3/31/2011 have been fully considered but they are not persuasive.

Claims 34 and 36 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The specification is silent regarding a liquid jet pressure of at least 200 psi. The applicant asserts that it is known in the art to use the claimed pressure of “at least 200 psi” because the current specification incorporates by reference a United States patent that in turn refers to a Canadian patent which discloses that it is known in the art to use a pressure of 200 to 2000 psi. The applicant asserts that this Canadian patent disclosure proves that it is common knowledge in the art to use the claimed pressure. Applicant’s argument is not persuasive. Firstly, although it may have been a known option to use the claimed pressure of at least 200 psi, there is no evidence that the liquid jetted from the claimed invention was at a pressure of at least 200 psi. Secondly, the limitation of “at least 200 psi” does not meet the written description requirement because the phrase “at least” has no upper limit and causes the claims to read on embodiments outside the broadest range disclosed in the Canadian patent. *In re Wertheim*, 541 F. 2d 257, 191 USPQ 90 (CCPA1976).



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Claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The “mechanical properties” and “structural strength” required to reflect liquid jetted from a hydroentangling apparatus are functional limitations that depend on a plurality of undefined variables (undefined in the claims and in the specification). For example, the amount of structural strength required to reflect liquid jets depends on the liquid jet pressure and the exposure time to the liquid jets. At a lower pressure and/or shorter exposure time little structural strength is required to handle the liquids jets but at a higher pressure and/or a longer exposure time a larger structural strength is required to handle the liquid jets. Therefore, it is unclear what mechanical properties or structural strength is claimed because no standard for comparison is claimed.

The applicant asserts that the current claims are definite because the specification of a Canadian patent discloses it is known in the art to use a pressure of 200 to 3000 psi and a total energy of 0.10 to 2.0 hp-hr/lb. Applicant’s argument is not persuasive because although it may have been known to use a specific pressure and a specific total energy and a specific time, said features are not recited in the rejected claims. For example, independent claims 1 and 23 do not state that the liquid jetted from the apparatus is at 200 psi.

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The limitation is tantamount to a claim drawn to a car with “mechanical properties and structural strength” to protect the life of a driver in a crash. This limitation renders the claim indefinite because a specific crash is not specified. Is the crash at 5 mph or 60 mph? Is the driver wearing a seatbelt? Is the crash head-on or is it from the rear or the side? These are just a few variables necessary to render the claim definite. A car involved in a fender bender clearly requires much less structural strength than a car involved in a head-on collision at 60 mph.

Regarding claims 33 and 35, the Markush members render the claims indefinite because each member refers to a property wherein flat filaments are not present without establishing that which is present (undefined variables). It is not clear if all or some or none of the other variables (e.g., materials, weave structure, filament fineness, and/or fabric density) are the same or different for the two comparable scenarios. The variables are undefined in the claims and in the specification. In addition, the claims fail to positively identify the non-flat shape(s).

The limitations are tantamount to a claim drawn to a car comprising a V6 engine wherein the car has a top speed of T' that is greater than a speed T, wherein T represents the top speed of a car without a V6 engine. This limitation renders the claim indefinite because a specific comparable car is not specified. Is the other engine a V4 or a V8? What are the weights of the cars? These are just a few variables necessary to render the claim definite. A brand new V8 Ferrari clearly has a higher top speed than a 1976 V4 Pinto.

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Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 01/25522 to Noelle (USPAP 2002/0160681 cited as translation document).

The applicant asserts that the covering fabric of Noelle is not considered a belt because the paper "*Comments on the Paper Entitled "Splitting of Islands-in-the-Sea Fibers During Hydroentangling of Nonwovens"*" by Pourdeyhimi states that there is a difference between a hydroentangling drum and a hydroentangling belt. Applicant's argument is not persuasive because Noelle does not merely disclose a hydroentangling drum. Rather, Noelle discloses a hydroentangling cover fabric. It's not clear how Pourdeyhimi is even relevant to Noelle since Pourdeyhimi lacks a drum cover fabric. Pourdeyhimi certainly does not suggest that a drum cover fabric is not considered a belt. On the contrary, the drum fabric is in the shape of a belt (encircles the drum) thus it is a belt. Much like a pair of pants is held in place by a belt that encircles the wearer. The applicant is directed to USPN 5,290,454 to Dorica which discloses that a covering for a drum is considered a covering "belt" (column 4, lines 52-64). It is further noted that the drum of Dorica is perforated and includes a vacuum (column 4, lines 52-64) just like the perforated and vacuumed drum disclosed by Noelle [0030].

The applicant asserts that the covering fabric of Noelle is not a "support fabric." The applicant asserts that the covering fabric is not a supporting fabric merely because the covering fabric is positioned around a cylinder. The applicant asserts that the cylinder supports the web of fibers rather than the covering fabric. The examiner respectfully disagrees.

Firstly, in the paragraph bridging pages 5 and 6 of the current specification the applicant references USPN 6,163,943 to Johansson as teaching a hydroentangling system. Johansson discloses that hydroentangling is a technique introduced during the 1970's and directs the reader to CA 841 938 to Shambelan (see column 1, lines 9 and 10). Shambelan discloses a hydroentangling apparatus comprising a couple of hydroentangling treatment drums (page 6, line 27 through page 7, line 22). Shambelan discloses that a fine mesh wire screen backing member may cover each drum (paragraph bridging pages 6 and 7) and that the backing member is "used as a support during the jet treatment" (page 10, lines 6-15). Therefore, it is clear that a drum covering fabric of Noelle is a "support fabric."

Secondly, the covering fabric of Noelle supports an overlying web of fibers while water jets are projected onto the web ([0092] and [0093]). The covering fabric clearly supports the web of fibers because the web of fibers remains positioned over the covering fabric (see Figures). Applicant's argument is tantamount to asserting that the rubber tires of a car are not "supporting" tires because the tires are supported by the cylindrical metal wheels of the car.

Thirdly, applicant's "support fabric" is also supported by cylinders as show in Figure 3 and described on page 7, lines 19-27.

Fourthly, a recitation of the intended use of the claimed invention (as a support) must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Since Noelle clearly discloses that the fabric withstands liquid jetted from a hydroentangling apparatus and that the fabric is in a continuous loop or made endless, it is inherently capable of being used as a support.

The applicant asserts that the covering fabric of Noelle cannot be used as a hydroentangling belt. The examiner respectfully disagrees. As stated above, the covering fabric of Noelle not only can be used as a hydroentangling belt, it literally is used as a hydroentangling belt. Plus, the applicant admits that the flat cross-sectional shape of the filaments results in the claimed mechanical properties and structural strength to reflect liquid jetted from a hydroentangling apparatus (see page 11 of the response filed 3/31/2011). Therefore, considering that the filaments of Noelle have a rectangular cross-sectional shape [0092], it is clear that the covering fabric of Noelle can be used as a hydroentangling belt as currently claimed.

The applicant also asserts that the covering fabric of Noelle may not be considered a hydroentangling belt because it allegedly lacks abrasion resistant, is too flexible, and because it fails to “act as the power transmission belt for the entire device.” Applicant’s arguments are not persuasive at least because the features upon which applicant relies are not recited in the claims.

The applicant asserts that Noelle fails to teach or suggest alleged “unexpected advantages” of flat filaments. The applicant asserts that the mechanical and structural properties of claims 33 and 35 positively recite these “unexpected advantages.” The examiner respectfully disagrees. Firstly, the claims are rejected under 35 U.S.C. 102(b). A result cannot be found unexpected when the attributing feature is anticipated by the applied art. Secondly, although the results may be preferred results, there is no evidence that they are unexpected. The applicant provides no evidence that any of the properties listed in claims 33 and 35 are unexpected to any degree. The applicant certainly fails to provide evidence that the results are sufficiently unexpected to overcome obviousness. Applicants have the burden of establishing that results are unexpected and significant. See MPEP 716.02(b).

For example, page 9, lines 5-28 of the specification mentions the use of flat filaments to make a fabric thinner but said disclosure does not even suggest that this is unexpected. On the contrary, said disclosure references Figures 1 and 2 wherein a fabric with round filaments is compared to a fabric with flat filaments. The thickness of the flat filaments of Figure 2 is thinner than the thickness of the round filaments of Figure 1 thus resulting in the alleged "unexpected result" of a thinner fabric.

Also, the applicant asserts that the flat filaments unexpectedly improve abrasion resistance, reflection, and tensile strength. Again, applicant's arguments are not persuasive because although the results may be advantageous for the intended use, the applicant has failed to show that the results are unexpected to any degree. It is expected that a support fabric with flat filaments would behave differently than a support fabric with round filaments. Any differences between the claimed invention and the prior art may be expected to result in some differences in properties (MPEP 716.02). Evidence relied upon must establish that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance. *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992) (Mere conclusions in appellants' brief that the claimed polymer had an unexpectedly increased impact strength "are not entitled to the weight of conclusions accompanying the evidence, either in the specification or in a declaration.").

It is additionally noted that Noelle discloses that it is known that the invention produces nonwovens with excellent tensile strength, tearing strength, absorbance, and abrasion resistance [0026]. Further, USPN 4,865,786 to Shibukawa discloses that it is known that flat filaments increase reflection (column 8, lines 11-27).

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Claims 23, 25-27, 31, 32, 35 and 36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 5,857,497 to Gaisser.

The applicant asserts that Gaisser fails to teach or suggest the claimed fabric because the fabric is not in the location currently claimed (in a hydroentangling apparatus). Applicant's argument is not persuasive because a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

The applicant asserts that the claims require an hydroentangling apparatus. The examiner respectfully disagrees. The applicant claims a hydroentangling support fabric "in a hydroentangling apparatus." Thus, the applicant merely claims the location of the support fabric. The location of the support fabric does not affect the structure of the support fabric. This is tantamount to claiming a conventional car steering wheel located in the coach seating area of an airplane, and then arguing that the steering wheel is novel because car steering wheels are conventionally located in cars.

Claims 1, 2, 4, 6, 13, 23, 25-27, 31 and 33-36 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over USPN 6,074,966 to Zlatkus.

The applicant asserts that Zlatkus fails to teach or suggest the claimed fabric because the filaments allegedly do not have a flat cross-sectional shape. Applicant's argument is not persuasive.

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Zlatkus discloses a variety of hydroentangling backing wires including a high knuckle wire, a medium knuckle wire, and a flat wire (Figure 1). It is noted that the flat wire backing is not called a small knuckle wire. Rather, it is called a "flat wire." Therefore, the wires are not merely woven with a small knuckle, but are actually woven with a flat knuckle. Considering that a wire comprising flat knuckles inherently possesses flat areas (flat knuckle areas), the flat wire of Zlatkus inherently comprises areas (at least at the knuckle) having a flat cross-sectional shape.

Claims 1, 2, 4, 6-8, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 103(a) as obvious over USPN 5,857,497 to Gaisser in view of WO 01/88261 to Strandqvist.

The applicant asserts that there is no motivation to use the fabric in a hydroentangling apparatus. The examiner respectfully disagrees. Gaisser discloses using the support fabric in a papermaking apparatus (column 1, lines 11-25), but Gaisser does not mention using the support fabric in a hydroentangling apparatus. Strandqvist discloses that it is known in the hydroentangling apparatus art to use a support fabric from a papermaking apparatus (see entire document including page 4, lines 7-18). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to try using the support fabric of Gaisser in a hydroentangling apparatus, motivated by a desire to construct a functioning hydroentangling apparatus.



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A patent claim can be proved obvious merely by showing that the combination of elements was obvious to try. When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product is not of innovation but of ordinary skill and common sense. *KSR v. Teleflex*.

The applicant asserts that Gaisser teaches away from the combination because Gaisser discloses that some prior art press felts are inadequate for use as a dryer felt. Applicant's argument is not persuasive because the current rejection does not teach or suggest using a press felt as a dryer felt. Rather, the current rejection teaches that it would have been obvious to use the felt of Gaisser as a support fabric in a hydroentangling apparatus.

Claims 1, 2, 4, 6, 13, 23, 25-27 and 31-36 are rejected under 35 U.S.C. 103(a) as obvious over WO 01/88261 to Strandqvist in view of USPN 3,790,438 to Lewis.

The applicant asserts that Lewis fails to teach or suggest flat filaments. The examiner respectfully disagrees. Lewis discloses that the invention pertains to fibers with a rectangular cross-section (column 1, lines 5-8).

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Claims 23, 25-27, 31, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,883,022 to Elsener in view of any one of USPN 3,884,630 to Schwartz or USPN 4,104,814 to Whight.

The applicant asserts that the fabric of Elsener is non-analogous to the claimed hydroentangling support fabric. The examiner respectfully disagrees. The current specification discloses that a hydroentangling support fabric is merely a fabric that is capable of being used to support a fiber web while water jets entangle the supported fibers (page 3, line 25 through page 4, line 13). Therefore, if it can be shown that the fabric of Elsener is capable of being used as claimed, then the references are clearly analogous.

The applicant asserts that the support fabric taught by the applied prior art could not withstand pressures of between 200 and 2000 psi. Applicant's argument is not persuasive. Firstly, with the exception of claims 34 and 36, the feature upon which applicant relies is not recited in the rejected claims. Secondly, the limitations of claims 34 and 36 are new matter. Thirdly, a liquid jet exposure time is not specified in any claim and therefore all of the claims are indefinite as explained above. Fourthly, the fabrics are substantially identical in terms of structure and the applicant fails to provide sufficient evidence that the fabric cannot withstand the claimed pressure.

***Conclusion***

24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Ortiz can be reached on (571) 272-1206. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew T Piziali/  
Primary Examiner, Art Unit 1798